

Ergonomics demonstration project: Grocery stores

Need

Grocery stores are in the top 12 industries in Washington State with the most musculoskeletal injuries. Grocery stores rank fourth overall for soft-tissue disorders of the upper extremity. More than 3,000 grocery-store workers in Washington had lost-time claims for these injuries during 1992-1998. The information gained from this project with Ken's Market can aid in the understanding and reduction of these injuries in the industry.

Efficient implementation of the ergonomics rule requires employers to be able to quickly and accurately identify caution zone risk factors in their jobs.

Goals

The goals of the demonstration project are to:

- Evaluate the reliability of supervisor ratings of caution zone risk factors.
- Demonstrate the use of a work sampling approach for analysis of hazard zone risk factors in the grocery industry.
- Evaluate possible caution zone and hazard zone risk factors and potential solutions for grocery stores.

Project design

The most frequently performed activities were chosen for evaluation: stocking and checking. Supervisors and workers at two grocery stores in Seattle completed questionnaires relating the presence or absence of caution zone risk factors in the two jobs. Two ergonomists observed workers in the jobs and conducted two hours of work sampling for each job. One hour of observation was during a rush time and one hour was during a slow time. Results from the work sampling were compared to the questionnaire responses. No hazard zone risk factors were found, but information on ergonomics rule compliance was given to the employer.

Timetable

September 2000.....Begin initial discussions and initiate evaluations

November 2000.....Completed final report and documentation

Results

- Supervisors agreed with ergonomist evaluations of caution zone risk factors over 80% of the time. Supervisors tended to overestimate the number of caution zone risk factors on the jobs where there was disagreement with ergonomists. Supervisors were able to make reasonable determinations about the presence or absence of caution zone jobs.
- No hazard zone risk factors were observed, though further analysis at a larger grocery store would be needed to generalize results across the industry.

A report detailing the reliability of supervisor assessments, and identification of caution zone and hazard zone risk factors, with recommendations to the company for compliance with the ergonomics rule.